

## CAUTION

1. SAVE THIS INSTRUCTIONS- This manual contains important safety and operating instructions for the G10-XXN battery charger.  
Please read the caution of batteries or devices you want to charge firstly!
2. When charging, batteries can emit explosive gases, therefore it is essential to prevent flames and sparks. The charger is designed for charging specified NIMH/NICD batteries. Do not use for any other purpose.
3. Always provide good ventilation when charging.
4. Use of an attachment not recommended or sold by Green-Digital Power-tech may result in a risk of fire, electric shock or serious injury to persons.
5. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting charger.
6. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure that: a) Pins on plug of extension cord are the same number, size and shape as those of plug on charger; b) Extension cord is properly wired and in good electrical condition; and c) Wire size is large enough for ac ampere rating as specified in "technical data".
7. Do not operate charger with a damaged cord or plug-return the charger to the place where purchased.
8. Never operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way; take it to a qualified serviceman.
9. Do not disassemble the charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
10. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning. Turning off controls will not reduce the risk.



**G10-XXN 4.8V~12V NIMH/NICD Battery Charger**

# User's Manual



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Green Digital Power-tech Co., Ltd.

## Brief Introduction

G10-XXN is a main member of digital-chargers from Green Digital Power-tech Co., Ltd. It represents today's new technology for 4.8V(4s) ~ 12V(10s) NIMH/NICD battery pack charging. G10-XXN programmed 2 auto stages (I<sub>m</sub>-I<sub>t</sub>) charging process. It is designed for 4s(4.8V) ~ 10s(12V) 2~8Ah NIMH/NICD battery pack. When the battery was connected properly, stage "I<sub>m</sub>" will give bulk constant current charging. This is the main charge stage, when the battery nearly charged full, -dV phenomenon will be detected by the MCU in charger (-dV value is 3~6mV/per cell about). Then the battery will leave bulk stage and cut-off output or enter a defined trickle pulse charge stage "I<sub>t</sub>" to maintain battery.

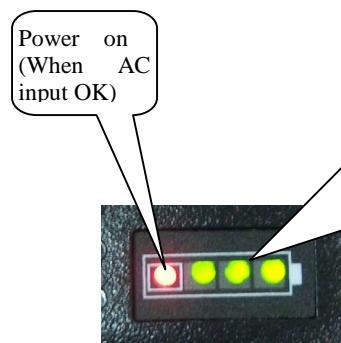
Further, G10 can display the charging process, indicate the battery capacity from 50% to 100% timely. This is helpful for user.

For more safety, G10 will enter protection mode when the battery polarity reversed our the output connectors shorted.

### Specification for G10-XXN

Input Voltage	100-240VAC, 50-60Hz		
Input Current	0.2A		
Back current drain	<1.3mA		
Charge voltage limit	G10-08N (suit for 3s~4s)	G10-12N (suit for 5s~6s)	G10-20N (suit for 7s~10s)
	6.4V	9.6V	16V
Bulk charge current	1.2A	1.0A	0.7A
Cutoff condition	-dV>=5mV/cell or Timer out or Peak-voltage trigger		
Operate Temperature	-20°C~50°C		
Cooling	Natural convection. Do not cover the charger.		
Charge principle	Auto 3 stages: I <sub>p</sub> -I <sub>m</sub> -I <sub>t</sub>		
Battery type	NIMH/NICD 7.2V~12V(6S~10S)		
Battery capacity	3-25Ah		
Size	81X43X30mm		
Enclosure	IP54 (Dust protected, Water splashing resistance)		
Weight	100g		

## Display Panel



Charging process indicator:  
Indicate battery capacity from 50% to 75%, then to 100% when charging.  
All 3 lamps flashing means battery polarity reversed or output shorted.  
All lamps are "off" means no battery.

### How to use:

1. Connect the AC cord to the socket, The "power" lamp will light on RED.
2. Connect positive charger clip (red) to positive battery terminal, the black clip to negative. (You can use other dc plugs to connect battery), the "50%~100%" lamps will light on flowing. If the battery polarity reversed or output shorted, 3 lamps will flashing, please check the setup.
3. Depend on the charged capacity, 50%~100% lamps will lights up solid sequence, until the battery is fully charged. Then you can power off the charger and disconnect the battery or you can charge a new battery if you need.

The table shows the duration of 100% state charged for an empty battery.

Battery Cap.(Ah)	G10-08N hours	G10-12N hours	G10-20N hours
2.2	2	2.5	3.5
4.4	4	5	7
8.0	7.5	9	13